



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/489,570	01/21/2000	William J. Baer	STL000021US1	5998

24852 7590 03/29/2002

INTERNATIONAL BUSINESS MACHINES CORP
IP LAW
555 BAILEY AVENUE , J46/G4
SAN JOSE, CA 95141

EXAMINER

PHAM, HUNG Q

ART UNIT

PAPER NUMBER

2172

DATE MAILED: 03/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/489,570

Applicant(s)

BAER ET AL.

Examiner

HUNG Q PHAM

Art Unit

2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-75 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-75 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other:

Art Unit: 2172

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. **Claims 1-22, 26-47 and 51-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeRose et al. [USP 5,557,722].**

Regarding to claims 1, 26, and 51, DeRose teaches a method for formatting documents in electronic or other non-paper media, and for generating representations, indexing and rendering on a computer screen of electronic documents (Col. 1, lines 13-17). The DeRose method using a tree-like structure for storing at least one content object as a title of a book that has a plurality of content entities such as chapter, section and text in a data repository (Fig. 3, Col. 3, lines 28-41). DeRose fails to disclose: for each content object, storing as a file object a list of content entity identifiers defining the content of the content object, and storing ones of the plurality of content entities as a plurality of file objects, each file object containing one content entity. However, DeRose teaches in the process of indexing a document, three file objects are created on the mass storage device. These file objects are called the element directory, the fully-qualified name table and the text content (Col. 10, lines 39-51). As shown in Fig. 8 (Col. 10-Col. 12), the process will append tag name to current fully-qualified name table (Col. 11, line 40-55) and save text content to the text file (Col. 12, lines 41-46). The fully-qualified name table is a list of tag names or content entity identifiers that indicate the content of the content object (Fig. 7) and the text content for each chapter or section will be stored as a file object in the text file (Col. 12, lines 41-46). These steps indicate for each content object, storing as a file object a list of content entity identifiers defining the content of the content object, and storing ones of the plurality of content entities as a plurality of file objects, each file object containing one content entity. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose process to have the steps of storing as file objects a list of

Art Unit: 2172

content entity identifiers defining the content of the content object and content entity in order to format an electric document such as electric book in accordance with its contents.

Regarding to claims 2, 27 and 52, DeRose teaches all the claimed subject matters as discussed in claims 1, 26 and 51, DeRose further discloses: the step of creating an attribute table in the data repository for storing an attribute pertaining to at least one of content objects or content entities (Fig. 6, Col. 9, lines 21-23 and Col. 10, lines 39-56).

Regarding to claims 3, 28 and 53, DeRose teaches all the claimed subject matters as discussed in claims 2, 27 and 52, DeRose further discloses: the step of creating a row for each content object in the attribute table, the row containing at least one attribute pertaining to the content entity (Fig. 6, Col. 9, line 21-Col. 10, line 6).

Regarding to claims 4, 29 and 54, DeRose teaches all the claimed subject matters as discussed in claims 2, 27 and 52, DeRose further discloses: the step of creating a row for each content entity in the attribute table, the row containing at least one attribute pertaining to the content entity (Fig. 6, Col. 9, line 21-Col. 10, line 6).

Art Unit: 2172

Regarding to claims 5, 30 and 55, DeRose teaches all the claimed subject matters as discussed in claims 2, 27 and 52, DeRose further discloses: at least one attributes is extracted from the content object (Col. 9, lines 21-37).

Regarding to claims 6, 31 and 56, DeRose teaches all the claimed subject matters as discussed in claims 1, 26 and 51, but fails to disclose: ones of the content entities further comprise components associated with the content object, and further comprising the step of storing each associated component as a file object. However, as shown in Fig. 3, the body 50 of book 52 comprises an art work 64 that associated with book 52 as the content object. DeRose further discloses: some of the tags in the descriptive markup of the document may also be empty tags such as tag 49 (FIG. 4). Such empty tags may be used for cross-referencing, referencing other documents, or for referencing graphic or other types of non-text information, etc. These tags often have attributes which are variables, such as "file", to which are assigned values, such as "myfig12" (Col. 8, lines 61-67). This indicates ones of the content entities further comprise components associated with the content object, and further comprising the step of storing each associated component as a file object. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose method to include the step of storing each associated component as a file object in order to format an electric document such as electric book in accordance with its non-text information such as image file.

Regarding to claims 7, 32 and 57, DeRose teaches all the claimed subject matters as discussed in claims 1, 26 and 51, DeRose further discloses: the content object is one of a book, a collection of images, an album, and a video (Col. 7, lines 59-64).

Regarding to claims 8, 33 and 58, DeRose teaches all the claimed subject matters as discussed in claims 1, 26 and 51, DeRose further discloses: the content object is a book and ones of the content entities are one of volumes, chapters or sections (Col. 7, lines 59-64).

Regarding to claims 9, 34 and 59, DeRose teaches all the claimed subject matters as discussed in claims 1, 26 and 51, but fails to disclose: the content object is a compilation of content. However, as shown in Fig. 3 and 5, the book is a content object comprises title, body, chapters and sections. This indicates the content object is a compilation of content. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose method to include the step of compilation of content into the content object in order to format an electric document such as electric book in accordance with its contents.

Regarding to claims 10, 35 and 60, DeRose teaches all the claimed subject matters as discussed in claims 4, 29 and 54, DeRose further discloses: at least one of the associated components comprises an image (Col. 8, lines 18-25).

Regarding to claims 11, 36 and 61, DeRose teaches a method for formatting documents in electronic or other non-paper media, and for generating representations, indexing and rendering on a computer screen of electronic documents (Col. 1, lines 13-17). The DeRose method using a tree-like structure for storing at least one content object as a title of a book that has a plurality of content entities such as chapter, section and text in a data repository (Fig. 3, Col. 3, lines 28-41). DeRose fails to disclose: for each content object, storing as a file object an outline of containers and content entity identifiers defining the content and hierarchy of the content object, and storing ones of the plurality of content entities as a plurality of file objects, each file object containing one content entity. However, DeRose teaches in the process of indexing a document, three file objects are created on the mass storage device. These file object are called the element directory, the fully-qualified name table and the text content (Col. 10, lines 39-51). As shown in Fig. 8 (Col. 10-Col. 12), the process will append tag name to current fully-qualified name table (Col. 11, line 40-55) and save text content to the text file (Col. 12, lines 41-46). The fully-qualified name table is a list of tag names or content entity identifiers that indicate the content of the content object (Fig. 7) and the text content for each chapter or section will be stored as a file object in the text file (Col. 12, lines 41-46). These steps indicate for each content object, storing as a file object an outline of containers and content entity identifiers defining the content and hierarchy of the content object, and storing ones of the plurality of content entities as a plurality of file objects, each file object containing one content entity. Therefore, it would have been

Art Unit: 2172

obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose process to have the steps of storing as file objects an outline of containers content entity identifiers defining the content of the content object and content entity in order to format an electric document such as electric book in accordance with its contents.

Regarding to claims 12, 37 and 62, DeRose teaches all the claimed subject matters as discussed in claims 11, 36 and 61, DeRose further discloses: the step of creating an attribute table in the data repository for storing an attribute pertaining to at least one of content objects or content entities (Fig. 6, Col. 9, lines 21-23 and Col. 10, lines 39-56).

Regarding to claims 13, 38 and 63, DeRose teaches all the claimed subject matters as discussed in claims 12, 37 and 62, DeRose further discloses: the step of creating a row for each content object in the attribute table, the row containing at least one attribute pertaining to the content entity (Fig. 6, Col. 9, line 21-Col. 10. line 6).

Regarding to claims 14, 39 and 64, DeRose teaches all the claimed subject matters as discussed in claims 12, 37 and 62, DeRose further discloses: the step of creating a row for each container in the attribute table, the row containing at least one attribute pertaining to the container (Fig. 6, Col. 9, line 21-Col. 10, line 6).

Regarding to claims 15, 40 and 65, DeRose teaches all the claimed subject matters as discussed in claims 12, 37 and 62, DeRose further discloses: the step of creating a row for each content entity in the attribute table, the row containing at least one attribute pertaining to the content entity (Fig. 6, Col. 9, line 21-Col. 10, line 6).

Regarding to claim 16, 41 and 66, DeRose teaches all the claimed subject matters as discussed in claims 12, 37 and 62, DeRose further discloses: at least one attributes is extracted from the content object (Col. 9, lines 21-37).

Regarding to claims 17, 42 and 67, DeRose teaches all the claimed subject matters as discussed in claims 11, 36 and 61, but fails to disclose: ones of the content entities further comprise components associated with the content object, and further comprising the step of storing each associated component as a file object. However, as shown in Fig. 3, the body 50 of book 52 comprises an art work 64 that associated with book 52 as the content object. DeRose further discloses: some of the tags in the descriptive markup of the document may also be empty tags such as tag 49 (FIG. 4). Such empty tags may be used for cross-referencing, referencing other documents, or for referencing graphic or other types of non-text information, etc. These tags often have attributes which are variables, such as "file", to which are assigned values, such as "myfig12" (Col. 8, lines 61-67). This indicates ones of the content entities further comprise components associated with the content object, and further comprising the step of storing each associated component as a file object. Therefore, it would have

Art Unit: 2172

been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose method to include the step of storing each associated component as a file object in order to format an electric document such as electric book in accordance with its non-text information such as image file.

Regarding to claims 18, 43 and 68, DeRose teaches all the claimed subject matters as discussed in claims 11, 36 and 61, DeRose further discloses: the content object is one of a book, a collection of images, an album, and a video (Col. 7, lines 59-64).

Regarding to claims 19, 44 and 69, DeRose teaches all the claimed subject matters as discussed in claims 11, 36 and 61, DeRose further discloses: the content object is a book and ones of the content entities are one of volumes, chapters or sections (Col. 7, lines 59-64).

Regarding to claims 20, 45 and 70, DeRose teaches all the claimed subject matters as discussed in claims 11, 36 and 61, DeRose further discloses: the content object is a book and ones of the containers are one of books, volumes or chapters (Col. 7, lines 59-64).

Regarding to claims 21, 46 and 71, DeRose teaches all the claimed subject matters as discussed in claims 11, 36 and 61, but fails to disclose: the content object is

Art Unit: 2172

a compilation of content. However, as shown in Fig. 3 and 5, the book is a content object comprises title, body, chapters and sections. This indicates the content object is a compilation of content. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose method to include the step of compilation of content into the content object in order to format an electric document such as electric book in accordance with its contents.

Regarding to claims 22, 47 and 72, DeRose teaches all the claimed subject matters as discussed in claims 14, 42 and 64, DeRose further discloses: at least one of the associated components comprises an image (Col. 8, lines 18-25).

4. Claims 23-25, 48-50 and 73-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeRose et al. [USP 5,557,722] in view of DeRose et al [6,055,544].

Regarding to claims 23, 48 and 73, DeRose [722] teaches a method for retrieving a content object from a data repository, the content object being stored as a file object containing an ordered list of content entity identifiers defining the content of the content object, and a plurality of content objects, each containing a content entity by using a table of content (DeRose [722], Col. 16, lines 29-40). DeRose [722] fails to disclose: retrieving the file object containing the list of content entity identifiers; for each content entity identifier, retrieving the file object corresponding to the identified content entity;

Art Unit: 2172

and inserting the content entity into the ordered list at the location of its content entity identifier. DeRose [544] teaches a method for retrieving a content object from a data repository by using the table of content (DeRose [544], Col. 11, lines 38-60). In order to retrieve a content object, an element in the table will be selected to retrieve the file object containing the list of content entity identifiers (element directory 61, Col. 11, line 61-Col. 12, lines 5). The element identifier and its attributes in the element directory 61 will be accessed and a fragment of a document will be transferred to the client. These indicate the steps of retrieving the file object containing the list of content entity identifiers; for each content entity identifier, retrieving the file object corresponding to the identified content entity; and inserting the content entity into the ordered list at the location of its content entity identifier. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose [722] method by including the DeRose [544] technique to retrieve the file object containing the list of content entity identifiers also the file object corresponding to the identified content entity and inserting the content entity into the ordered list at the location of its content entity in order to render a document requested by a user.

Regarding to claims 24, 49 and 74, DeRose [722] teaches a method for constructing a content object, the content of the content object being defined by an ordered list of content entity identifiers identifying one or more content entities stored in a data repository by using a table of content (DeRose [722], Col. 16, lines 29-40). DeRose [722] fails to disclose: for each content entity identifier, retrieving the file object

Art Unit: 2172

corresponding to the identified content entity; and inserting the content entity into the ordered list at the location of its content entity identifier. DeRose [544] teaches a method for retrieving a content object from a data repository by using the table of content (DeRose [544], Col. 11, lines 38-60). In order to retrieve a content object, an element in the table will be selected to retrieve the file object containing the list of content entity identifiers (element directory 61, Col. 11, line 61-Col. 12, lines 5). The element identifier and its attributes in the element directory 61 will be accessed and a fragment of a document will be transferred to the client. These indicate the steps of retrieving the file object corresponding to the identified content entity; and inserting the content entity into the ordered list at the location of its content entity identifier.

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose [722] method by including the DeRose [544] technique to retrieve the file object corresponding to the identified content entity and inserting the content entity into the ordered list at the location of its content entity in order to render a document requested by a user.

Regarding to claims 25, 50 and 75, DeRose [722] and DeRose [544] teaches all the claimed subject matters as discussed in claims 24, 49 and 74, DeRose [722] further discloses: assigning an identifier to the content object; and assigning new content entity identifiers to the content entities, the new identifiers including the identifier assigned to the content object (Fig. 6, Col. 9).

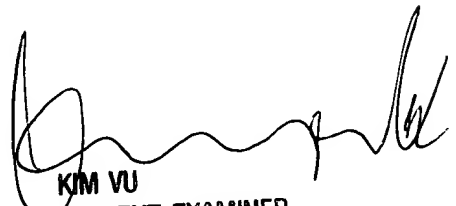
Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Pham whose telephone number is 703-605 4242. The examiner can normally be reached on Monday-Friday, 7:00 Am - 3:30 Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, VU, KIM YEN can be reached on 703-305 4393. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746 7239 for regular communications and 703-746 7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305 3900.

Examiner: Hung Pham
Mar 20, 2002


KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100